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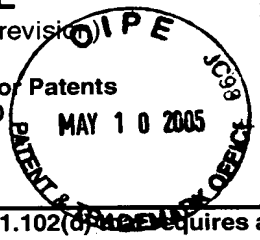
# PETITION FEE

Under 37 CFR 1.17(f), (g) & (h)

## TRANSMITTAL

(Fees are subject to annual revision)

**Send completed form to: Commissioner for Patents**
**P.O. Box 1450, Alexandria, VA 22313-1450**

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|---|---|
| *Application Number* | **10/649,748** |
| *Filing Date* | **August 28, 2003** |
| *First Named Inventor* | **Yusuke NODA et al.** |
| *Art Unit* | **2133** |
| *Examiner Name* | **Not yet assigned** |
| *Attorney Docket Number* | **500.43094X00** |

**Enclosed is a petition filed under 37 CFR 1.102(d) that requires a processing fee (37 CFR 1.17(f), (g), or (h)). Payment of $ 130.00 is enclosed.**

This form should be included with the above-mentioned petition and faxed or mailed to the Office using the appropriate Mail Stop (e.g., Mail Stop Petition), if applicable. For transmittal of processing fees under 37 CFR 1.17(i), see form PTO/SB/17i.

**Payment of Fees** (small entity amounts are NOT available for the petition (fees)

☒ The Commissioner is hereby authorized to charge the following fees to Deposit Account No. 50-1417:

☐ petition fee under 37 CFR 1.17(f), (g) or (h) ☒ any deficiency of fees and credit of any overpayments

Enclose a duplicative copy of this form for fee processing.

☐ Check in the amount of $ _____ is enclosed.

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**Petition Fees under 37 CFR 1.17(f):** **Fee $400** **Fee Code 1462**

For petitions filed under:
§ 1.53(e) - to accord a filing date.
§ 1.57(a) - to according a filing date.
§ 1.182 – for decision on a question not specifically provided for.
§ 1.183 – to suspend the rules.
§ 1.378(e) for reconsideration of decision on petition refusing to accept delayed payment of maintenance fee in an expired patent.
§ 1.741(b) – to accord a filing date to an application under §1.740 for extension of a patent term.

**Petition Fees under 37 CFR 1.17(g):** **Fee $200** **Fee code 1463**

For petitions filed under:
§1.12 - for access to an assignment record.
§1.14 - for access to an application.
§1.47 - for filing by other than all the inventors or a person not the inventor.
§1.59 - for expungement of information.
§1.103(a) - to suspend action in an application.
§1.136(b) - for review of a request for extension of time when the provisions of section 1.136(a) are not available.
§1.295 - for review of refusal to publish a statutory invention registration.
§1.296 - to withdraw a request for publication of a statutory invention registration filed on or after the date the notice of intent to publish issued.
§1.377 – for review of decision refusing to accept and record payment of a maintenance fee filed prior to expiration of a patent.
§1.550(c) – for patent owner requests for extension of time in ex parte reexamination proceedings.
§1.956 – for patent owner requests for extension of time in inter partes reexamination proceedings.
§ 5.12 – for expedited handling of a foreign filing license.
§ 5.15 – for changing the scope of a license.
§ 5.25 – for retroactive license.

**Petition Fees under 37 CFR 1.17(h):** **Fee $130** **Fee Code 1464**

For petitions filed under:
§1.19(g) – to request documents in a form other than that provided in this part.
§1.84 – for accepting color drawings or photographs.
§1.91 – for entry of a model or exhibit.
§1.102(d) – to make an application special.
§1.138(c) – to expressly abandon an application to avoid publication.
§1.313 – to withdraw an application from issue.
§1.314 – to defer issuance of a patent.

| | | | |
|---|---|---|---|
| *Name (Print/Type)* | **Frederick D. Bailey** | *Registration No. (Attorney/Agent)* | **42,282** |
| *Signature* | | *Date* | May 10, 2005 |

Docket No.: 500.43094X00



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

Yusuke NODA et al.

Serial No. 10/649,748

Filed: August 28, 2003

For: METHODS AND APPARATUS FOR RECOVERING WORK OF ONE COMPUTER BY ANOTHER COMPUTER

**PETITION TO MAKE SPECIAL**
**UNDER 37 CFR §1.102(MPEP §708.02)**

May 10, 2005

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants hereby petition the Commissioner to make the above-identified application special in accordance with 37 CFR §1.102(d). Pursuant to MPEP §708.02(VIII), Applicants state the following.

(A) This Petition is accompanied by the fee set forth in 37 CFR §1.17(h). The Commissioner is hereby authorized to charge any additional payment due, or to credit any overpayment, to Deposit Account No. 50-1417.

(B) All claims are directed to a single invention. If the Office determines that all claims are not directed to a single invention, Applicant will make an election without traverse as a prerequisite to the grant of special status.

(C) A pre-examination search has been conducted.

The search was directed to the invention set forth in claims 1-12. As set forth in claim 1, the invention is related to a disaster recovery method of recovering a process at a data center when a failure occurs at another data center during execution of the process, comprising the steps of: transmitting data at a first data center normally used to a second data center at a predetermined time interval and forming a backup of the received data at said second data center; when a failure occurs at said first data center, selecting an information processing apparatus whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time, from information processing apparatuses in said second data center; and deploying an application used at said first data center in said selected information apparatus and recovering the data at said first data center from said backup at said selected information processing apparatus.

The search of the above features was conducted in the following areas: class 707, subclasses 200-205, class 709, subclass 203, 223, class 711, subclass 111-114, 136, 154, 160-162 and class 714, subclasses 1-7.

Additionally, a computer database search was conducted on the USPTO system EAST.

(D) The following is a list of the references deemed most closely related to the subject matter encompassed by the claims:

| U.S. Patent Number | Inventors |
|---|---|
| 5,404,508 | KONRAD et al. |
| 5,596,707 | OHTA |
| 5,758,359 | SAXON |
| 5,796,934 | BHANOT et al. |
| 5,930,824 | ANGLIN et al. |
| 6,247,141 | HOLMBERG |
| 6,785,786 | GOLD et al. |

| U.S. Patent Publication No. | Inventor(s) |
|---|---|
| 2003/0084372 | MOCK et al. |
| 2003/0225646 | FAILLA et al. |
| 2004/0078628 | AKAMATU et al. |

A copy of each of these references (as well as other references uncovered during the search) is enclosed in an accompanying IDS.

(E) It is submitted that the present invention is patentable over the references for the following reasons.

It is submitted that the cited references, whether considered alone or in combination, fail to disclose or suggest the invention as claimed. In particular,

the cited references, at a minimum, fail to disclose or suggest when a failure occurs at said first data center, selecting an information processing apparatus whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time, from information processing apparatuses in said second data center, and/or an information processing apparatus selecting unit for, when a failure occurs at said first data center, selecting an information processing apparatus whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time, from information processing apparatuses in said second data center.

All of the independent claims recite at least one of these features. In particular, independent claim 1 recites a disaster recovery method that includes when a failure occurs at said first data center, selecting an information processing apparatus whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time, from information processing apparatuses in said second data center. Independent claim 7 recites a disaster recovery system that includes an information processing apparatus selecting unit for, when a failure occurs at said first data center, selecting an information processing apparatus whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time, from information processing apparatuses in said second data center. Independent claim 12 recites a storage medium storing a program for making computers function as an information

processing apparatus selecting unit for, when a failure occurs at said first data center, selecting an information processing apparatus whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time, from information processing apparatuses in said second data center.

The references considered most closely related to the claimed invention are briefly discussed below:

**U.S. Patent No. 5,404,508 (Konrad et al.)** discloses a system and method for maintaining a backup database, and for providing quick recovery of the backup database in the event that database processing on the primary data base becomes inoperable. The invention entails maintaining a primary database, against which transactions are processed. Information relating to updates to the primary database is saved to intermediate storage in what is logically referred to as the audit trail. A backup database is established at an arbitrary point in time and saved in storage which is separate from that in which the primary database is stored. Part of transaction processing entails receiving transactions, updating the primary database for update type transactions, and saving audit information pertaining to the update transaction to intermediate storage. (See, e.g., Abstract and column 4, line 22, through column 5, line 34.) However, unlike the present invention, Konrad et al. do not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time

including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent No. 5,596,707 (Ohta)** discloses an information processing system including a control table, which discriminates whether or not the data selected from a first external storage unit holding a large amount of data has been introduced in the main storage with reference to that control table. The data which has not been introduced in the main storage is transferred from the first external storage unit to the second external storage unit in certain units of volume via the buffer at the time of a backup operation. The data which has been introduced in the main storage is read out from the main storage and converted to the physical format in the first external storage unit and written in the second external storage unit. At the time of a recovery operation, the data is written from the second external storage unit into the first external storage unit in certain units of volume via the buffer, but when it is discriminated by the control table that the data is data which has been introduced in the main storage, this is also written at the corresponding position in the main storage. (See, e.g., Abstract and column 1, line 58, through column 2, line 18.) However, unlike the present invention, Ohta does not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent No. 5,758,359 (Saxon)** discloses a method and apparatus for performing computer system backups according to a backup policy made sensitive to adjustable selection criteria. The backup system employs a backup policy to control the backup procedures so that the backups are performed at specific times and at specific backup levels, but the backups are subject to user-defined selection criteria. The selection criteria comprises a maximum size threshold, selected by a user or administrator, so that the amount of data that can be backed up in an allotted backup time. (See, e.g., Abstract and column 2, line 9, through column 3, line 32.) However, unlike the present invention, Saxon does not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent No. 5,796,934 (Bhanot et al.)** discloses a system and a method for providing fault tolerance in a client/server computer system. A client is initially connected to a primary server. The primary server normally handles all of the client's transactions. However, a secondary connection is designated to a backup server, whereby if the primary server ever becomes disabled, the client is automatically switched over to the backup server. In-flight transaction information corresponding to transactions currently being processed by the primary server is stored and regularly updated by the client. The client regularly polls the primary server to check whether the primary server is properly functioning. If the primary server becomes disabled, all in-flight transactions

pending on the disabled server are rolled back and the client resubmits in-flight transaction information to the backup server so that it can complete any transactions which were in progress on the primary server at the time of the failure. (See, e.g., Abstract and column 2, lines 38-61.) However, unlike the present invention, Bhanot et al. do not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent No. 5,930,824 (Anglin et al.)** discloses a system and method for demand-based data recovery operating in a computerized data processing system that includes a computer platform operable under the control of system data, including system programs, catalogs, directories, inventories and the like, and one or more user applications operable in conjunction with user data. The data processing system includes a data backup and recovery system for periodically transferring data between one or more primary data storage resources and one or more secondary data storage resources. The demand-based system and method operates to recover data from the secondary data storage resources to the primary data storage resources following a disaster event resulting in the loss of all or a portion of the data on the primary data storage resources. (See, e.g., Abstract and column 2, line 28, through column 3, line 7.) However, unlike the present invention, Anglin et al. do not disclose that when a failure occurs at a first data center, an information processing apparatus

is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent No. 6,247,141 (Holmberg)** discloses fault tolerant server systems including redundant servers. The fault-tolerant client-server system comprises a primary server, a backup server and a client. The client sends a request to the primary server. The primary server receives and processes the request, including sending a response to the client, independent of any backup processing being performed by the primary server, where the response includes primary server state information. By sending the response independent of backup processing, a higher level of concurrence is achieved, thereby making the system more efficient. The primary server also performs backup processing, including periodically sending the primary server state information to the backup server. The client receives the response from the primary server, and sends the primary server state information from the client to the backup processor. The act of performing backup processing in the primary server may be performed periodically based on a predetermined time interval. (See, e.g., Abstract and column 2, lines 19-53.) However, unlike the present invention, Holmberg does not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent No. 6,785,786 (Gold et al.)** discloses a tape storage apparatus, comprising an interface for connecting the apparatus to one or more clients; a controller for controlling the apparatus and for processing messages received from the one or more clients; a primary storage; and a tape storage, where the controller is programmed to process a backup and restore messages received from the one or more clients respectively to backup to the primary storage means data received from the clients and to restore to the clients data from the primary storage means. The system also performs a backup to the tape storage, in accordance with pre-defined criteria, of at least some of the data stored in the primary storage, and restores to the primary storage, in accordance with a respective restore message received from a client, at least some data stored in the tape storage. (See, e.g., Abstract and column 1, line 54, through column 2, line 53.) However, unlike the present invention, Gold et al. do not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent Publication No. 2003/0084372 (Mock et al.)** discloses a method and system for backing up and recovering data in a database environment. The system includes a protection utility for compiled data in a computer system having dynamically configurable logical partitions that determines the time for rebuilding compiled data. The data is selectively stored in a form not requiring rebuild in order to meet a pre-specified recovery time limit.

If the configuration changes, the protection strategy is migrated to adapt to the new configuration. The user specifies a maximum recovery time for the database indexes, and the protection utility automatically calculates the recovery time for each index. If the total recovery time is more than a specified maximum time, at least some of the indexes are logged to reduce the recovery time. (See, e.g., Abstract and paragraphs 15-19.) However, unlike the present invention, Saxon does not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent Publication No. 2003/0225646 (Failla et al.)** discloses a backup storage system for electronic securities trading that performs either an immediate system-level backup or a delayed manual takeover. In the interest of rapid recovery for virtually all failures, a degree of automatic processing is allowed, but in general, manual intervention is always an option. (See, e.g., Abstract and paragraph 38.) However, unlike the present invention, Failla et al. do not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

**U.S. Patent Publication No. 2004/0078628 (Akamatu et al.)** discloses a method and system in an operations management system for reorganizing an

execution schedule of operations when a failure occurs in a storage device. The recovery time of a storage device where a failure occurs is determined, and according to the recovery time, a schedule is produced for the operations that use the storage device where the failure occurred, and for the operations that do not use it. The system performs a calculation as to whether or not an operations management server can execute an operation within a certain period of time, and if it is not able to do so, then another operations management server is selected to perform the particular operation. (See, e.g., Abstract and paragraphs 6 and 37.) However, unlike the present invention, Akamatu et al. do not disclose that when a failure occurs at a first data center, an information processing apparatus is selected, from information processing apparatuses in a second data center, whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time.

Therefore, since the references fail to disclose when a failure occurs at said first data center, selecting an information processing apparatus whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time, from information processing apparatuses in said second data center, and/or an information processing apparatus selecting unit for, when a failure occurs at said first data center, selecting an information processing apparatus whose necessary recovery time including a time taken to input data still not backed up satisfies a predetermined requested recovery time, from information processing apparatuses in said

second data center, it is submitted that all of the claims are patentable over the cited references.

## CONCLUSION

Applicant has conducted what it believes to be a reasonable search, but makes no representation that "better" or more relevant prior art does not exist. The Patent Office is urged to conduct its own complete search of the prior art, and to thoroughly examine this application in view of the prior art cited herein and any other prior art that the Patent Office may locate in its own independent search. Further, while Applicant has identified in good faith certain portions of each of the references listed herein in order to provide the requisite detailed discussion of how the claimed subject matter is patentable over the references, the Patent Office should not limit its review to the identified portions but rather, is urged to review and consider the entirety of each reference, and not to rely solely on the identified portions when examining this application.

In view of the foregoing, Applicant requests that this Petition to Make Special be granted and that the application undergo the accelerated examination procedure set forth in MPEP 708.02 VIII.

Respectfully submitted,

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